

easily accessible areas in this simple manner whenever they have opportunity for field work the accuracy of the foregoing statistics can be checked up, and at the same time significant similarities and differences, that are hardly suspected now, between different regions will be brought out.

COLLEGE POINT, L. I.

TYPE, COTYPE, AND TOPOTYPE LABELS

BY E. D. MERRILL

In all large herbaria that are rich in type material, the curator is confronted with the problem of properly indicating the important specimens, that is, those that are the actual types of species, cotypes of species, or in "collective species" those specimens that conform to the original type of the species as described, and agree with it as to origin. It is scarcely enough to indicate on the specimen that it is a type or a cotype, merely by writing these words on the sheet or on the label. Where one has to examine numerous sheets, as is frequently the case in large herbaria, before locating the critical specimen he is searching for, some special supplementary label is needed, one that is sufficiently prominent to attract the immediate attention of the herbarium worker.

In the Bureau of Science for a number of years the herbarium was stored in a wooden frame building, and one in which a large amount of chemical work was done. The danger of fire was always present. As the herbarium increased in size and value, and as the number of types and cotypes increased in number, it was felt that the critical material should be placed in a safer place. Accordingly all types and cotypes of Philippine species were segregated from the general herbarium, and stored in special cases which were in turn placed in a practically fireproof part of the Bureau of Science building. As to the number of specimens thus segregated, it is approximately 4,500 sheets. At the time the specimens were being segregated, each one was labelled with a special type or cotype label, as the case might be,

as illustrated in Figs. 1 and 2. These labels are printed in *red* ink and are attached to the herbarium sheet immediately above the herbarium label.

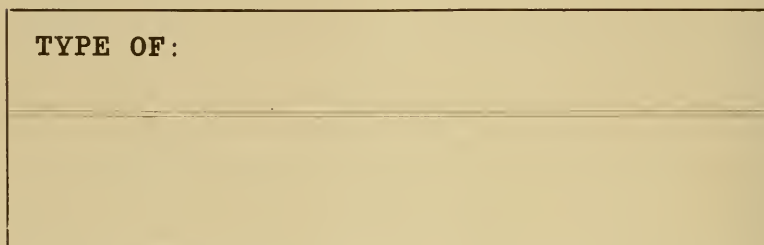


FIG. 1. Label for type specimens (original label in *red* ink).

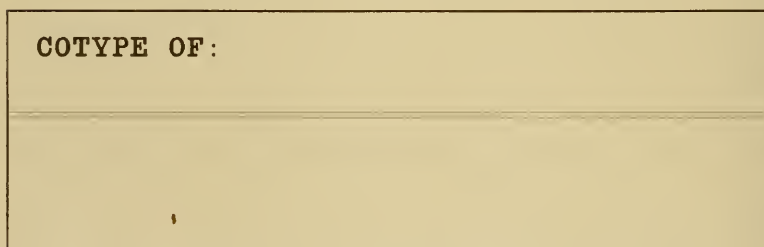


FIG. 2. Label for cotype specimens (original label in *red* ink).

Recently it has been my privilege to work up two large collections of plants from outside of the Philippines, the material collected by the late Dr. C. B. Robinson in Amboina, to illustrate the species figured and described in Rumphius's *Herbarium Amboinense*, and an extensive collection made on Mount Kinabalu, British North Borneo, by Chaplain and Mrs. Clemens and Mr. Topping. Both localities are "classical" regions in Malayan botany, and naturally the collections from both places are very rich in topotypes. In working up this material, wherever the specimens agreed perfectly with the original descriptions of species based by various authors on Amboina or Kinabalu specimens, such specimens have received the special topotype label as shown by Fig. 3. This topotype label is printed in *green* ink, to distinguish it at once from type and cotype specimens. For all practical purposes these topotypes are nearly as valuable as

types or cotypes. In the case of the Amboina species, of which over 400 are typified wholly by Rumphius's descriptions and figures, no type specimens are extant, so that topotypes in this case will to a large degree take the place of the actual types in interpreting the numerous species based by the early authors wholly on Rumphius. In general, as groups of plants are critically studied, and in "collective species," such as *Callicarpa longifolia* Lam., when a specimen is found that originated in the type locality (Malacca in this particular case), and that agrees perfectly with Lamarck's original description, it is supplied with a topotype label, and all specimens that do not agree with this specimen are then removed from the *Callicarpa longifolia* cover.

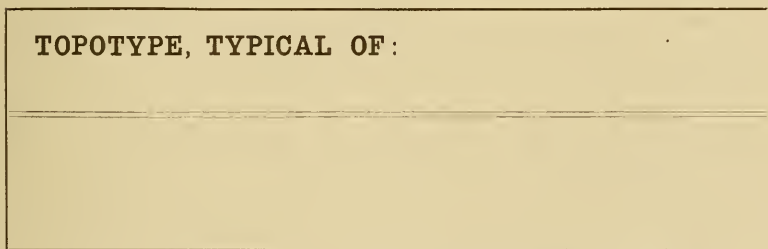


FIG. 3. Label for topotype specimens (original label in *green ink*).

It is believed that these special labels could be adopted with great profit in all large botanical institutions that are rich in type, cotype, and topotype material. As the task of going through any large herbarium and properly labelling such material would be a very great one, it is not advocated that this be done at one time. The special labels might be adopted for current herbarium work, and could be added to the specimens representing the species already described as various groups are revised or critically studied.

BUREAU OF SCIENCE,
 MANILA, P. I.,
 August, 1916